

SOFTWARE APPROACH TO EXAMINATIONS
RECORD SYSTEM OF
ISAH KAITA COLLEGE OF EDUCATION, DUTSIN MA.

BY

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CERTIFICATION

I CERTIFY THAT THIS PROJECT WORK WAS CARRIED OUT BY ME: IBRAHIM SADA SODANGI
UNDER THE SUPERVISION OF APPOINTED SUPERVISOR, MALAM AUDU ISAH.

APPROVAL

This project work has been checked and approved by:

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(Supervisor)

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DEDICATION

This work is dedicated to my late Grandparents; Hajia Hassatu Ibrahim Sodangi, Alhaji Ibrahim Sodangi and to friend Mustapha Inuwa Rafin Dadi. May their souls rest in peace, amin.

ACKNOWLEDGEMENT

All praise be to Allah, the Creator and provider of the world and its contents. May peace be upon the last and seal of all prophets sent to mankind for guidance.

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My gratitude goes to my parents: Alhaji Sada Sodangi and Hajiya Binta S. Sodangi, for ther parental care, my wife- Hadiza for bearing with me on the course of this work, my brothers and sisters- Asma'u, Aminu, Shamsudden, Safinatu, Ahmad, Lubabatu, Fatima, Nafisatu, Saifullahi, Buhari and Farouk- for their love and support.

Mustapha Inuwa Rafindadi, of blessed memory, on whose advice I enrolled into te programme cannot be forgotten. May his soul rest in perfect peace, amen.

My gratitude also goes to the provost and HOD (sciences), Isah Kaita college of education Dutsin Ma for providing me with all the required information in this research work.

At last my regards to all my friends: A.Y. Safana, Arch. Kamal Dahiru, Lawal Abdullahi Yaya, Tukur Hassan Dan Ali, Dalhatu Buhari Alkali, Dalhatu Bature Batagarawa, Nuradden Abdulhameed and others too numerous to mention.

May Allah's blessing be upon us all, ameen.

ABSTRACT

Computer is an electronic device that takes in data, process it quickly and efficiently so that the information obtained is timely and accurately. This is as a result of series of instructions given to it, these are called software.

The project work is aimed at alleviating problems associated with the manual system of examination record system of Isah Kaita College of Education, Dutsin Ma.

The new system provides programs for student's registration storing of results, computing of GPA and CGPA and generating reports among others.

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CHAPTER ONE

1.0 GENERAL INTRODUCTION

Isah Kaita College of Education, Dutsin ma, Katsina State was established in 1991 and it was named after a renowned educationist and first Education Minister in the first Republic, Alhaji Isah Kaita.

The college was first meant to train only technical teachers, but due to the rationalization in the educational sector it was transformed into a conventional type College of education in July 1994, thus, the introduction of new courses. Facts available show that the college took up with staff strength of 20 and a total intake of one hundred students. The first set of pioneer students graduated in September 1994.

Barely three years when the college took up, a lot of improvements have been made in terms of both infrastructure and facilities to encourage conducive atmosphere of learning.

The college has three academic schools namely; Education, Science and Pre-NCE and Extra-mural studies. The National Commission for Colleges of Education (NCCE) conducted an accreditation exercise in the college in June, 1994. Ten courses were then accredited namely; Biology, Chemistry, Physics, Mathematics, Geography, Agricultural Science, Integrated Science, English, PHE and Education. The rest of the courses were accredited in October 1996.

But one area, which the college has not given much attention to is the area of Computer Science or Computer Technology. Neither the department of Mathematics nor the School of Science is conducting a Computer Science programme, which leads to under utilization of the various computers in the college. The Examination grading system in the college is manually carried out which makes it tedious and prone to errors.

Computers and their many applications have brought with them both economic and social changes. Computers are today the most significant technical development. Computer literacy involves recognizing and using computer as a problem solving tool and being aware of the potentials of computer to affect the quality of life. With the discovery of computers, most management tasks have become easy to handle. Many organizations have employed the use of computers in performing most of their operational as well

as their managerial functions. In governmental organizations for instance computers are use in the preparation of the staff list and employees payroll checks. Universities and Colleges use computers in managing students' records. The records may contain the number of students, courses offered, registration numbers, course grade, course code and unit and other related information.

The computer required software or series of instructions to perform a required task. It is this software that makes computers the valuable and indispensable tool that it has become today and will continue to be in the future.

1.1 OBJECTIVES OF ESTABLISHING THE COLLEGE

Katsina was referred to as the center of knowledge because it housed the first college in Northern Nigeria and the imminent personalities that it produced in the Nigerian history. To revive that name and up lift the standard of education and to meet the growing educational need of the state. The college was entrusted to meet the following objectives: -

- i. Training well qualified non-graduate teachers that will handle primary and post-primary institutions.
- ii. Training people who will serve as inspectors of education in the Ministry of Education.
- iii. Training specialists that can handle primary schools syllabuses.
- iv. Providing and producing NCE holders and preparing students for admission into Universities.
- v. Providing extra-mural studies to deficient candidates in WASCE.

CHAPTER TWO

2.0 LITERATURE REVIEW

The growing recognition of data as a valuable corporate resource has led to the establishment of organizational units concerned with data processing and management system. Due to increasing use of data base management and the growing acceptance of the need to carry out detail analysis of the data, many organization are embracing data base approach in order to remain efficient, modern and competitive. To remain efficient and competitive an organization should have its mind that, data base approach is more than simply acquiring a data base management system or collecting and storing data in one integrated data base or designating someone to centrally control the data, it involves tools to collect and manage the data, a responsible and co-operative attitude among users and a data base administrator. This aids in providing management with timely, precise and quality information.

Several problems may motivate management of an organization to adopt the data base approach. Difficulties may arise in an inability to get something done or done economically, quickly and accurately. Most of the times, there is the inability to get quick answers to "simple" ad hoc requests.

To get rid of all these problems, many organizations have adopted the implementation of data base management systems.

2.1 ADVANTAGES OF DATA BASE MANAGEMENT SYSTEM

- a. Reducing data duplication – redundant data can be eliminated and information provided will become more consistent.
- b. It is easier to enforce standard and exercise control over both the definition of data and its use.
- c. It is possible to develop integrated systems.
- d. Systems can be developed more quickly and modified more easily.
- e. Maintenance and development cost can be reduced.
- f. Data processing department becomes more responsible to users ad hoc demand for information.

2.2 FILE

File may be defined as a collection of items of data organized into records, containing common data elements, which are duplicated in several functional files. This situation creates redundancy as same data elements in each of the files are updated separately. Data base system is aimed at eliminating duplication of storage, updating and providing the means for retrieving data elements for each of the application requirement in the required combination.

CHAPTER THREE

3.0. SYSTEM ANALYSIS AND DESIGN

System analysis is a process similar to problem solving. They are responsible for analyzing work method and procedures in order to simplify work and to improve workflow.

3.1. SYSTEM ANALYSIS

The phase is aimed at evaluating and examining the existing system in order not to only solve the problems but identify the strength and weakness of the analysis used in improving the system through data procedures and method

3.1.1 DATA COLLECTION PROCEDURES

The procedures adapted in gathering information used in carrying this work include personal interview with the examination officer and H.O.D. (Sciences) of the college, the students' records and the college journals.

3.2. PROBLEM DEFINITION

Problem definition is the process of determining the nature and scope of the problem. It allows for re-evaluation of the existing problem in the old system to find out if it is real or imaginary, major or minor and how urgent to alleviate the problem.

The manual examination record system of Isah kaita College of Education has the problem of misplacement or mal-handling of information about students' performance. Delays always arise in processing of students' data and at times errors often result during the process. Thus, the system is highly inefficient.

In the course of defining the problem, computer software approach was found to be reliable and more valid.

3.3. FEASIBILITY STUDY

Feasibility investigation was carried on to determine the desirability of the proposed system by studying the existing method of Examination records of Isah Kaita College of Education Dutsinma. The manual system has been in existence since the inception of the college, information

generated from the study of the system was used in the development of the new system was used in the development of the new system. The advantages of the old system were incorporated into the new system. The problems associated with the manual system were identified to be.

3.3.1 FILES MISPLACEMENT.

Misplacement of student's files occur when information are being processed. There is always delay in accessing of students records.

3.3.2 INCREASED RATES OF ERRORS.

Since the volume of data to processed is often large, errors often result during operations.

3.3.3 PRIVACY OF FILES

Students files are not adequately secured as such unauthorized persons can easily tempered with them with a view of getting relevant information about a particular student.

3.3.4 ACCESSIBILITY

Accessibility to student's files is very slow. Many files to be sorted before information from a particular file is obtain.

3.3.5 REPORTS GENERATION;

Reports on statistical data are difficult to be generated and they are often ignored even though vitally important.

3.3.5 RECORDS OMISSION.

Omission is students records always occur particularly in reproduction of repots.

3.4 COST - BENEFIT.

Isah Kaita College of Education has to inevitably adopt software approach on their personal computers in its Examination grading system for the purpose of efficiency, reliability of out put and maintenance of data integrity. The advantages cannot be over emphasized. These include its

high speed of execution which is to communicate faster and respond very quickly to any given situation, it also has facility for handling large volume of data more efficiency with high degree of accuracy and at relatively low cost.

For these reasons the services of a computer software specialist (programmer) is recommended to the college. The programmer will study the manual system , develop a program and train personnel that will operate the system.

Since the college has already acquired personal computer with all its accessories that are used for only secretarial purpose it will only cost them developing the software and personnel. The examination office will need only two computers and a printer. The software development will cost the college about N30,000 and phased training of personnel about N100,000.

Considering the importance of examinations and the associated problems attached to the manual system of grading students the cost of changing the system to computerized one is very negligible. Thus the changeover is highly recommended.

3.5 CHANGEOVER

This is the process of changing from the old to a new system i.e from the manual form of grading students to a computerized one. However, the researcher suggests parallel running changeover considering the importance of examination in an academic environment. This will allow confirmation of academic activities in case of failure in the new system.

Other type of changeovers includes direct, pilot running and staged changeover.

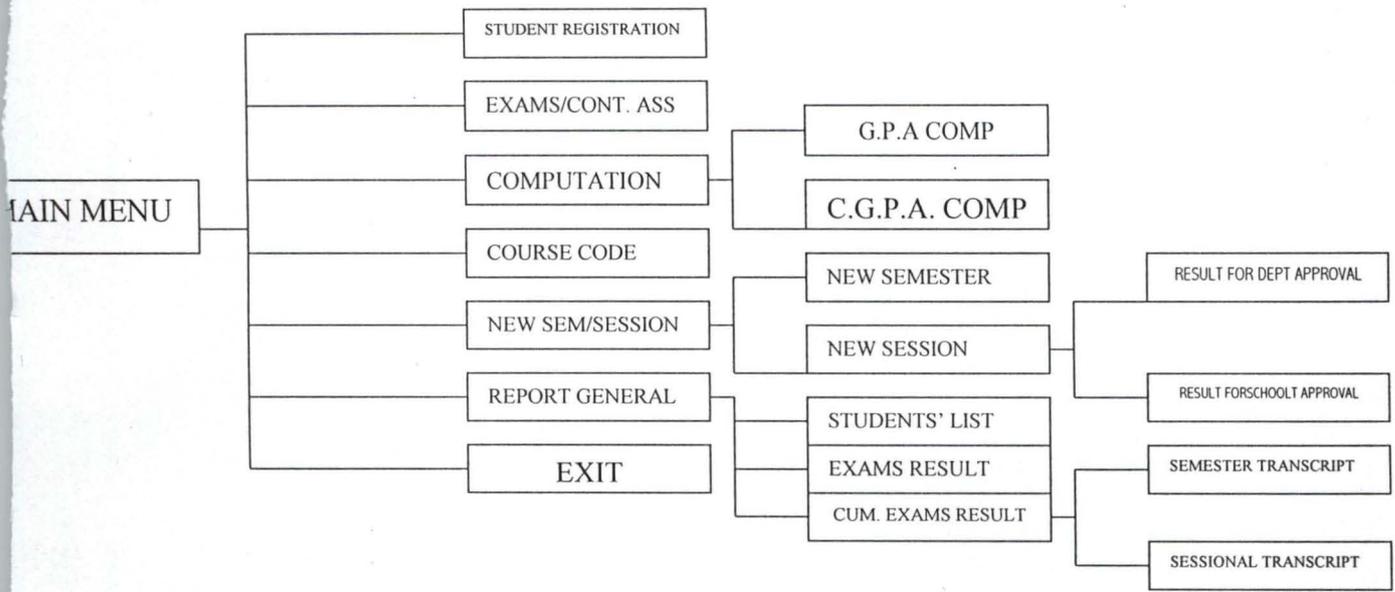
3.6 SYSTEM DESIGN:

Designing a new system after the approval of the recommendations made from analysis of the old system requires choosing an appropriate computer software that can be used to develop an application needed to solve the problem. In this case dbase IV is chosen. The choice of dbase IV is because of its user friendly nature and can be used to develop complex systems such as this.

3.7.0 SYSTEM STRUCTURE

The system is structured in procedures/modules that shows the logical relationship between the process and the way in which data has to be key in support all its activities (system). Duties to be performed in the system include the MAIN MENU which contain the following sub programmes:

- 3.7.1 STUDENTS REGISTRATION: Is a program that registers students in the college at the beginning of each semester/session.
- 3.7.2 EXAMINATION/CONTINUOUS ASSESSMENT: Stores scores obtained by students in the continuous assessment and examinations.
- 3.7.3 COMPUTATION: Computation of G.P.A (grade point Average) and C.G.P.A (Cumulative Grade Point Average) for all students in the college undertaken
- 3.7.4 COURSE CODE: This deals with courses to be offered by all students for a particular semester.
- 3.7.5 NEW SEMESTER/SESSION: This prepares the system for fresh registration and data COMPUTING.
- 3.7.6 REPORT GENERATION: This is mainly concerned with the generation of report on student's data.
- 3.7.7 EXIT: This gets you out of the system.



CHAPTER FOUR

4.0 SYSTEMS IMPLEMENTATION

4.0.0 Under this chapter, it is hoped that all the findings, system analysis and systems developments will be put into physical action. This chapter will specially tell us how grading of examinations results can be performed.

4.1.0 Choice of program Language

The programming language adapted is Dbase IV from Astiton Tate. It is one of the leading databases programming language. With dbase IV, one can create simple applications like keeping records of students and a complex one like computing C.G.P.A, G.P.A and so on.

Dbase IV is also one of the advanced versions of data base software that provides a relational database environment to users. The control center in dbase is significant improvement, through it you can design databases, manipulate and edit records, generate reports, perform query, design labels and browse database. In database IV up to 255 fields can be specified per second and a database can be related with more than 2 other database programs and procedures.

4.2.0 Programming testing

This program has been tested and approved to be free from any error and meets the requirements of proper examinations records of the College.

4.3.0 Installation

This is the physical acquirement of computer and its accessories.

4.3.1 Hardware

The hardware components include; the C.P.U, monitor and standard key board with printer.

4.3.2 Software

MS DOS, B. O or Higher, window 98 with dbase V.

4.4.0 Training

Since most of the staff are ignorant of the system, training them becomes inevitable. However, phase training program can be conducted to various users according to their limit in using the new system.

4.5 Implementation and Maintenance

It is not the implementation of the new system that is ultimate, but maintaining it is also of paramount importance. A post implementation exercise can be performed quarterly, half yearly or annually at a minimum.

All this is to determine whether the system has been successful, otherwise, the lifecycle will be restarted so as to make necessary improvements.

CHAPTER FIVE

5.0 Conclusion and Recommendations

5.1.0 Conclusion

This project has greatly shown how computers can be manipulated to achieve great results.

The growing number of students in the college has made the collating and processing of the examination records very cumbersome, thus prone to errors.

It has been discovered that mal-handling and misplacement of students' records resulted in a lot of discrepancies in examination results. These discrepancies contributed a lot towards falling standard of education.

5.2.0 Recommendations.

From the information generated on the operations of the old system, it has become pertinent for the college to adopt the use of computers in its examination records system for the purpose of efficiency, reliability of output and maintenance of data integrity. This however, involves the services of software developer. The advantages of new over old system cannot be over emphasized. These include its high speed of execution, which makes it to communicate faster and respond very quickly to any given situation. It has facility for handling large volume of data more efficiently with high degree of accuracy and at relatively low cost.

For these reasons, it is recommended that computerized system be used in processing of students' examination records.

APPENDIX 1
STRUCTURE FOR DATABASE MASTER .DBF

FIELD	FIELDNAME	TYPE	WIDTH	DEC
1. EXAMNO	C		18	
2. SURNAME	C		15	
3. INITIALS	C		3	
4. DEPTCD	C		2	
5. PART	N		3	
6. SESSION	C		7	
7. SEMESTER	N		2	
8. COURSE	C		6	
9. TITLE	C		15	

STRUCTURE FOR DATA BASE G.P.A DBF

FIELD	FIELD NAME	TYPE	WIDTH	DEC
1.	EXAM NO	C	8	
2.	SURNAME	C	15	
3.	INITIALS	C	3	
4.	DEPTCD	C	2	
5.	PART	N	3	
6.	SEMESTER	N	2	
7.	SESSION	C	7	
8.	TUNIT	N	3	
9.	TPASSED	N	7	
10.	GP	N	9	2
11.	GPA	N	9	2

STRUCTURE FOR DATABASE: COURSE. DBF

1.	CODE	C	6	
2.	TITLE	C	30	

STRUCTURE FOR DATABASE: SEMESTER.DBF

FIELD	FIELD NAME	TYPE	WIDTH	DEC
1.	EXAM NO.	C	8	
2.	SURNAME	C	15	
3.	INITIALS	C	3	
4.	DEPTCD	C	2	
5.	PART	N	3	
6.	SEMESTER	N	2	
7.	SESSION	C	7	
8.	COURSE	C	6	
9.	TITLE	C	15	
10.	CA	N	5	2
11.	EXAM	N	5	2
12.	UNIT	N	5	2
13.	SCORES	N	5	2
14.	PASSED	N	2	
15.	GRADE	C	2	
16.	GRADE NO	N	2	

APPENDIX 2

- PROGRAM CODING
- PROGRAM : EXAMINATION GRADING SYSTEM
- USER : ISA KAITA COLL. OF EDUC. KATSINA
- AUTHOR : SODANGI, IBRAHIM SADA
- DEPT. : MATHS/COMPUTER, F.U.T. MINNA
- DATE WRITTEN : 10TH OCTOBER, 2000

```
SET BELL OFF
SET DELI ON
SET TALK OFF
SET ECHO OFF
SET STAT OFF
SET SCOR OFF
SET PROC TO EGS
SET INTE OFF
SET DELI '<>'
CLEA ALL
DO COVER
PUBL I.M.C, CNAME, MSURNAME, MINIT, MPART, MDEPT, CFIL
DO PASSW
SET COLO TO G+R, N, G
DO MENU
SET PROC TO
*.....PASSWORD MODULE.....*
PROC PASSW
DO WHILE .T.
CLEAR
    REST FROM MEM. VAR ADDI x
    PW=SPACE(7)    &&PASSWORD VAR.
    WSPACE(7)    x
    PW = SODANGI    &&REAL PASSWORD.
DO WHILE MPW = SPAC(7)
    @10, 20 SAY "ENTER PASSWORD"
```

```

@10, 38 GET MPW PICT "!!!!!!"
SET COLO TO N/N, R, R
READ
ENDDO
SET COLO TO W
IF MPW <> 'SODANGI'
?CHR(9)
DO WHILE .T.
@14,20 SAY "INVALID PASSWORD -[R]E-ENTER,[E]ND...(R/E)"GET I PICT
READ
IF I='R'
EXIT
ENDIF
IF I='E'
CLEAR
*.....COVER PAGE MODULE.....*
PROC COVER
SET COLO TO R + G, N, G
CLEAR

@2,24 TO 5,53 DOUBLE COLOR &blue
@2,24 FILL TO 5,53 COLOR & blue
@3,27 SAY "ISAH KAITA COLLEGE OF EDUCATION"
@4,27 SAY "DUTSINMA, KATSINA STATE"
SET COLOR TO NORMAL
RETURN

```

PROC MENU

CLEAR

CLEAR ALL

@1,5 TO 24,70 DOUB

@2,20 SAY "ISAH KAITA COLLEGE OF EDUCATION DUTSIN MA"

@6,20 SAY "COMPUTERIZED EXAMINATION GRADING SYSTEM"

@7,20 SAY "MASTER MENU"

@	SAY	CODE	ACTION"
@10,20	SAY	1	STUDENTS' PERSONAL DATA"
@12,20	SAY	2	EXAM C/A"
@14,20	SAY	3	G.P.A COMPUTATION"
@16,20	SAY	4	COURSE CODE CREATION"
@18,20	SAY	5	NEW SEMESTER SESSION"
@20,20	SAY	6	REPORT GENERATION"
@22,20	SAY	7	EXIT"

@23,6 TO 22,69

INPUT "ENTER CHOICE" to choice

DOCASE

CASE choice = 1

? "STUDENTS PERSONAL DATA"

CASE choice = 2

?EXAMS/C.A."

CASE choice = 3

? "G.P.A COMPUTATION"

CASE choice = 4

? "COURSE CODE RELATION"

CASE choice =5

? "NEW SEMESTER/SESSION"

CASE choice = 6

? "REPORT GENERATION"

OTHERWISE

?EXIT

CLEAR ALL

CLEAR
QUIT
END CASE
RETURN

*NEW SEMESTER/SESSION SET UP MODULE.....*

PROC SEMEST

CLEAR

REST FROM MEMORY VARIABLES ADDI

(a)12,20 SAY "[1] NEW SEMESTER....."

(a)14,20 SAY "[2] NEW SESSION....."

(a)16,20 SAY "[3] RETURN TO MAIN MENU"

S=0

DOWHILE S=0

S=INKEY ()

IF UPPER (CHR(S)) \$ "123"

EXIT

ENDIF

ENDDO

CFIL = 'SEMESTER-BBF'

CLEAR

DOCASE

CASE CHR(S) \$ '3'

CLEAR ALL

DO MENU

CASE CHR(S) \$ '1'

(a)12,20 SAY "NEW SEMESTER....."GETMSEM RANGE 1,3

READ

IF FILE (CFIL)

?CHR(7)

DOWHILE I \$ SPACE (1)

(a)14,20, "ARE YOU SURE.....? (Y/N)" GET I PICT "!"

READ

END DO

IF I & "N"

DO MENU

ENDIF

CLEAR

```
SET COLO TO G+R,N,G
USE TRANS
IF.NOT.EOF ( )
DELETE ALL
PACK
ENDIF
APPEND FROM SEMESTER
ERASE SEMESTER.DBF
USE TRANS
COPY STRUCC TO SEMESTER
CLEAR ALL
DO MENU
ENDIF
CLEAR
@ 14,20 SAY "SEMESTER FILE MISSING.....! PRESS ANY KEY
SETCONS OFF
WAIT
SETCONS ON
DO MENU
CASE CHR(S) $"2'
@12,20 SAY "NEW SESSION...."GET MSES PICT '9999/99'
READ
?CHR(7)
DO WHILE I $ SPACE (1)
@14,20 SAY ""ARE YOU SURE...?' (Y/N)GET I PICT '!
READ
ENDDO
IF I $"N"
DO MENU
ENDIF
CLEAR
SET COLO TO/ GR+ /B*
@10,20 SAY "WAIT.....PREPARING FOR NEW SESSION."
USE TRANS
DELETE ALL
```

```
PACK
CLEAR ALL
DO MENU
END CASE
CLEAR ALL
RETURN
```

```
*.....NEW STUDENTS DETAILS.....*
```

```
PROC. NEW
DO WHILE .T.
REST FROM MEMORY VARIABLES ADDI
SELECT 1
CLEAR
GN = 0
IF > = 1
@12,20 SAY "STUDENT REGISTRATION NO. "GET MREGNO PICT "99/9999"
READ
SELECT 2
LOCATE FOR EXAMNO = MREGNO
IF . NOT. EOF ( )
?CHR (7)
DOWHILE I $ SPACE (1)
@11,20 SAY "REGNO. EXISTS.....! ERASE/MODIFY...(E/M) "GET MREGNO PICT
"99/9999"
READ
END DO
IF I $ "E"
@16,20 SAY "RECORD ERASED."
DELETE
PACK
CLEAR
LOOP
ENDIF
```

ENDIF

CLEAR

IF GN <>1

APPEND BLANK

ENDIF

@1510 TO 20,70 DOUB

@7,25 SAY "STUDENTS' PERSONAL DATA"

@8,20 SAY "REG. NO."

SET COLO TO /GR+/B*

@8,29 SAY MREGNO.

SET COLO TO G+R,N,G

@9,15 SAY "SURNAME" GET SURNAME

@11,15 SAY "INITIALS " GET INITIALS

USE IKCOE DEPT

LOCATE FOR CODE = MDEPT

IF EOF ()

?CHR (7)

@17,15 SAY "INVALID DEPT.CODE, ENTRY CANCELLED – PRESS ANY KEY"

SET CONS OFF

WAIT

SET CONS ON

DELETE

PACK

LOOP

ENDIF

@18,15 SAY "[S]AVE/EXIT.....[C]ONTINUE/SAVE..."

I=0

DO WHILE I=0

I=INKEY()

IF UPPER(CHR(I)) \$SC"

EXIT

ENDIF

I=0

```
ENDDO
END CASE
CASE CHR(I) $Ss"
IF N=1
DO MENU
ENDIF
RETURN
CASE CHR(I) $Cc"
N=N+2
LOOP
END CASE
CLEAR ALL
RETURN
```

```
@13,15 SAY "DEPT. CODE" GET DEPTCD
@15,15 SAY "PART" GET PART
READ
REPL EXMANO WITH MREGNO, MDEPT = DEPTCD
SELECT3
```

```
* .....NEW CODES MODULE.....*
PROC CODE
REST FROM MEMORY VARIABLES ADDI
DO WHILE.T.
CLEAR
@6,5 TO 18,70
@7,50 SAY "(XXX999) TO EXIT"
@10,20 SAY "NEW COURSE CODE. "GET C PICT' !!!999"
READ
IF C $ "XXX999"
DO MENU
END IF
USE COURSE
LOCATE FOR CODE = C
```

```

IF.NOT.EOF ( )
?CHR (7)
DO WHILE I $ SPACE (1)
@12,20 SAY "COURSE CODE [+C+] EXIT."
@14,20 SAY "(0) VERWRITE , (E)RASE, (D)ONE...."GET I PICT '!'
READ
ENDDO
IF I $ 'E'
DELETE $
PACK
LOOP
ENDIF
IF I $ 'D'
LOOP
ENDIF
ENDIF
@12,20 SAY "COURSE TITLE: "GET CNAME PICT '@!'
READ
@16,20 SAY "[S]AVE.....[R]EPEAT.....[C]ANCEL...."
X=0
DO WHILE X=0
X= INKEY ( )
IF UPPER (X) $ 'SRC'
EXIT
ENDIF
X=0
ENDDO
DOCASE
CASE CHR(X) $ "Ss"
IF I <> '0'
APPEND BLANK
END IF
REPL CODE WITH C, TITLE WITH CNAME
C=SPACE (6)
CNAME = SPACE (30)

```

```
LOOP
CASE CHR (X) $ "Rv"
LOOP
ENDCASE
EDDO
CLEAR ALL
RETURN
```

```
* .....CONTINUOUS.ASSESSMENT & EXAMS..... *
```

```
CLEAR
SELECT 2
MSURNAME = SURNAME
MINIT = INITIALS
MPART = PART
MDEPT = DEPTCD
@2,5 TO 23,70 DOUB
@5,110 SAY "REG.NO: "+MREGNO
@540 SAY "NAME: + RTRIM (MSURNAME) + " " +MINIT
@7,10 SAY "COURSE: "+C
@7,40 SAY "PART:"
@7,17 SAY LTRIM (STR(MPART))
@11,6 TO 11,69
CLEAR GETS
SELECT 1
```

```
LOCATE FOR EXAMNO & MREGNO. AND. COURSE & C
IF.NOT.EOF ( )
?CHR (7)
@13,15 SAY "COURSE DETAIL EXISTS....OVERWRITE (Y/N)"
GET I PICT '!'
IF I $ "N"
LOOP
ENDIF
GN =1
```

```

@13,15 SAY SPAC (45)
ENDIF
IF GN <> 1
APPEND BLANK
ENDIF
@13,15 SAY "CREDIT UNIT: "GET MUNIT PICT '99'
@15,15 SAY "CONT. ASSESSMENT : " GET MCA PICT. '99,99'
@17,15 SAY "EXAMINATION: "GET MEXAM PICT '99,99'
READ
MSCOURSE = MCA+MEXAM
@19,15 "SCORES.....:" GET MSCORES
@21,15 ASY "[E]XIT/SAVE.....[S]AVE/CONTINUE....."
I=0
DO WHILE I=0
I = INKEY ( )
IF UPPER (CHR(I) ) $ "ES"
EXIT
ENDIF
I=0
ENDDO
IF MSCORES < 40
G= 'F'
GN =0
ENDIF
IF MSCORES > = 44. AND. MSCORES <=40
G = 'E'
GN =1
ENDIF
IF MSCORES>=45. AND.MSCORES<=49
G='D'
GN=2
ENDIF
IF MSCORES>=50.AND.MSCORES<=59
G="C"
GN=3

```

```

ENDIF
IF MSCORES >= 60.AND.MSCORES <= 69
G='B'
GN=4
ENDIF
IF MSCORES >= 70
G="A"
GN=5
ENDIF
MPASSED=MUNIT *GN
REPL EXAMNO WITH MREGNO,SURNAME WITH MSURNAME, SEMESTER WITH
MSEM, INITIALS WITH MINIT, PART WITH MPART, COURSE WITH C, SESSION WITH
MSES, GRADE WITH G, GRADENO WITH GN, UNIT WITH MUNIT, TITLE WITH
CNAME, CA WITH MCA, EXAM WITH MEXAM, SCORES WITH MSCORES, DEPTCD
WITH DEPT, PASSED WITH MPASSED.
IF CHR(I) '$Ss'
MUNIT =0
MCA=0,00
MEXAM = 0.00
LOOP
ENDIF
EXIT
ENDDO
CLEAR ALL
RETURN

```

* ...G.P.A./C.G.P.A. COMPUTATION MENU MODULE.....*

```

PROC COMPMENU
CLEAR ALL
CLEAR

```

```

@10,20 SAY "COMPUTATION MENU"
@12,20 SAY "CODE ACTION"
@14,20 SAY "[G] COMPUTE SEM. G.P.A."
@16,20 SAY "[C] COMPUTE C.G.P.A. AFTER G.P.A."

```

@18,20 SAY "[E]

RETURN TO MENU."

```
J=0
DO WHILE J=0
J=INKEY( )
IF UPPER (CHR(J)) & "CGE"
EXIT
ENDIF
J=0
ENDDO
DO CASE
CASE CHR(J) & "Ee"
DO MENU
CASE CHR(J) & "Gg"
DO COMP 1
CASE CHR(J) & "Cc"
DO COMP 2
ENDCASE
RETURN
```

.....SEMESTER G.P/G.P.A MODULE.....

```
PROC COMP 1
CLEAR
SET COLO TO /GR+/B*
@12,15 SAY "PLS WAIT...! SEMESTER IS BEING COMPUTED..."
SET COLO TO G+ R, N, G.
SELECT 2
USE GPA
DELETE ALL
PACK
SELECT 3
USE MASTER
GO TOP
MREGNO = MEXAMNO
MSURNAME = SURNAME
MINIT = INITIALS
MPART = PART
MDEPT = DEPTCD
DO WHITE . T.
SELECT |
GO |
DO WHILE. NOT. EOF( )
IF MEXAMNO = MREGNO
MUNIT = MUNIT + UNIT
MGRADENO = MGADENO + GRADENO
ENDIF
SKIP
ENDDO
IF MUNIT > 0 .AND. MGADEND > 0
MGP = MUNIT*MGRADENO
MGPA = MGP/MUNIT
SELECT 2
APPEND BLANK
REPL MEXAMNO WITH MREGNO, SURNAME WITH MSURNAME, INITIALS WITH
MUNIT
```

```
REPL TUNIT WITH MUNIT, TPASSED WITH MGREDENO, GP WITH MGP, GPA WITH
MGPA
REPL PART WITH MPART, DEPTCD, WITH MDEPT.
ENDIF
SELECT 3
REST FROM MEMO. VARIABLES ADDI
IF EOF ( )
SKIP
MREGNO = MEXAMNO
MSURNAME = SURNAME
MINIT = INITIALS
MPART = PART
ENDDO
CLEAR ALL
RETURN
```

```
* .....CUMMULATIVE GPA MODULE.....*
```

```
PROC COMP 2
CLEAR
SET COLO TO /GR=/BA*
@12,15 SAY "PLS WAIT.....C.G.P.A. IS BEING COMPUTED....."
SET COLO TO G+R,N,G
SELECT 1
USE G.P.A.
SELECT 2
USE MASTER
GO TOP
MREGNO = MEXAMNO
MTUNIT = TUNIT
MTPASSED = TPASSED
DO WHILE .T.
SELECT 1
LOCATE FORMEXAMNO = MREGNO
```

```

IF .NOT. EOF ( )
MUNIT = MTUNIT + TUNIT
MTPASSED = MTPASSED + PASSED
SELECT 2
REPL TUNIT WITH MUNIT, TPASSED WITH MTPASSED
ENDIF
REST FROM MEMORY VARIABLES ADDI
SELECT 2
IF EOF ( )
EXIT
ENDIF
SKIP
MREGNO = MEXAMNO
MTUNIT = TUNIT
MTPASSED = TPASSED
ENDDO
RETURN

```

*COURSE FILE & RESULT ENTRY.....*

```

PROC START
DO WHILE .T.
CLEAR
REST FROM MEMORY VARIABLES ADDI
@5,50 SAY "[Q] TO QUIT..."
@8,5 TO 16,65 DOUBLE
@10,20 SAY "COURSE CODE: "GET C PICT '@!'
READ
IF TRIM © $ "Q" .OR. C $ 'QQQQQQ'
CLEAR
DO MENU
ENDIF
USE COURSE
LOCATE FOR CODE $ C
IF EOF ( )
?CHR (7)

```

```
@12,20 SAY "INVALID COURSE CODE....PRESS ANY KEY"  
SET CONS OFF  
WAIT  
SET CONS ON  
LOOP  
ENDIF  
EXIT  
ENDDO  
CNAME = TITLE  
@12,20 SAY SPAC (44)  
SELE 1  
USE SEMESTER  
SELE 2  
USE MASTER  
* .....REGISTRATION CONFIRMATION.....*  
DO WHILE .T.  
CLEAR  
MREGNO = SPACE (8)  
@11,15 TO 16,65 DOUBLE  
@5,55 SAY "[00/0000] TO EXIT"  
@12,20 SAY "STUDENT REGNO. "GET MREGNO.PICT "99/9999"  
READ  
IF MREGNO $ '00/0000'  
DO MENU  
END IF  
SELECT 2  
LOCATE FOR EXAMNO = MREGNO  
IF EOF ( )  
?CHR (7)  
@14,20 SAY "REGNO.NOT FOUND: STRIKE ANY KEY....."  
SET CONS OFF  
WAIT  
SET CONS ON  
LOOP  
ENDIF
```

Appendix 3
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